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*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR*

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<u>L5</u>	L4 and order near delivery	10	<u>L5</u>
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L7: Entry 26 of 169

File: USPT

Nov 20, 2001

US-PAT-NO: 6321231

DOCUMENT-IDENTIFIER: US 6321231 B1

TITLE: Data management and order delivery system

DATE-ISSUED: November 20, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jebens; John H.	Tierra Verde	FL		
Carlson; Lowell D.	Moline	IL		
James; Jeffrey Scott	Bettendorf	IA		

US-CL-CURRENT: 345/428, 355/40, 355/70, 396/639, 707/10, 707/102

## CLAIMS:

What is claimed is:

## 1. A data management system comprising:

an electronic storage facility for providing storage for digital assets of a plurality of unrelated asset provider users, at least some of the digital assets stored in the electronic storage facility including first sets of data each having a first bandwidth communication requirement and second sets of data each representative of an associated one of the first sets of data and having a second bandwidth communication requirement less than the first bandwidth communication requirement, the electronic storage facility storing the digital assets of a first one of the asset provider users such that the digital assets of the first asset provider user can only be accessed by authorized users identified by the first asset provider and such that the digital assets of the first asset provider user are transparent to users that are not authorized by the first asset provider user;

means for allowing an authorized user identified by the first asset provider to download a particular second set of data from the storing means to a first location;

means for accepting a work order from the authorized user at the first location wherein the work order identifies a second location as an intended destination of the work order, identifies the particular second set of data, and further includes data developed outside the system;

job order development means responsive to the accepting means for developing a job order including both (a) the first set of data associated with the particular second set of data and (b) the data developed outside the system; and

means for electronically routing the job order to the second location.

2. A system as defined in claim 1 wherein the first set of data comprises high resolution digital images, and the second set of data comprises low resolution digital images.

3. A system as defined in claim 2 wherein the high resolution digital images are input to the system by the first asset provider user.

4. A system as defined in claim 3 further comprising image handling means for processing the high resolution digital images input by the first asset provider user, the image handling means being adapted to develop low resolution images of the high resolution digital images received from the first asset provider user and to

- store both the high resolution digital images and the low resolution images in the storage facility in an addressable fashion for future searching.

5. A system as defined in claim 1 further comprising event tracking means for monitoring and recording predefined events occurring in the system.

6. A system as defined in claim 5 wherein the predefined events comprise one of the group consisting of: storing new data in the storing means; deleting data from the storing means; connecting to the system; disconnecting from the system; conducting a search of the data stored in the storing means; downloading data from the first set of data stored in the storing means; downloading data from the second set of data stored in the storing means; and routing the work order to a user.

7. A system as defined in claim 5 further comprising means for developing an indication of a charge to be assessed a user when at least one of the predefined events is recorded by the event tracking means.

8. A system as defined in claim 7 wherein the charge developing means automatically generates invoices on a periodic basis.

9. A system as defined in claim 8 wherein the routing means automatically routes the invoices to at least one user responsible for payment.

10. A system as defined in claim 1 wherein the routing means automatically electronically routes the job order to the second location.

11. A system as defined in claim 10 wherein the routing means automatically sends a facsimile to the second location notifying the second location of the job order being routed.

12. A system as defined in claim 10 wherein the routing means automatically sends an e-mail message to the second location notifying the second location of the job order being routed.

13. A system as defined in claim 1 wherein the job order defines a document to be printed, the second location is a printing facility, and the first set of data downloaded by the downloading means is to be printed as part of the document.

14. A system as defined in claim 13 wherein the allowing means, the accepting means, the routing means and the downloading means are implemented by at least one programmed processing device.

15. A system as defined in claim 14 wherein the at least one programmed processing device is implemented by a file storage server and an autolog server interconnected for co-operative operation.

16. A system as defined in claim 15 wherein the at least one programmed processing device is further implemented by a database server.

17. A system as defined in claim 14 wherein the at least one programmed device, the first location, and the second location are interconnected by a network.

18. A system as defined in claim 1 further comprising a communication device to permit users to communicate with the system.

19. A system as defined in claim 18 wherein the communication device is implemented by an internet server, a telecommunications server, and an e-mail server.

20. A system as defined in claim 1 wherein the storing means is implemented by an image storage device and a data storage device.

21. A system as defined in claim 20 wherein the image storage device comprises an optical disk robot and an optical data reader.

22. A system as defined in claim 20 wherein the data storage device comprises a RAID system.

23. A system as defined in claim 1 further comprising means for searching the storing means in response to user inputs to develop the particular second set of data.

24. A system as defined in claim 1 wherein the data developed outside the system and

included in the work order comprises a page description language file and the first set of data in the job order comprises a bit mapped image.

25. A system as defined in claim 1 further comprising:

means for receiving digital data from an asset provider user to be stored in the storage facility; and,

means for compressing the digital data received by the receiving means in accordance with a parameter set by the asset provider user.

26. A system as defined in claim 25 wherein the digital data received from the asset provider user is used to develop the first and second data sets.

27. A system as defined in claim 25 wherein the parameter defines a compression format to be employed by the compressing means.

28. A system as defined in claim 25 wherein the parameter defines a degree of compression to be employed by the compressing means.

29. A system as defined in claim 25 further comprising means for developing an indication of a charge to be assessed the as provider user for storing the digital data in the storage facility.

30. A system as defined in claim 29 wherein the charge developing means develops the charge based on the amount of storage memory utilized by the digital data.

31. A digital data storage facility as defined in claim 30 wherein the charge developing means develops a further charge based on the amount of time the digital data is stored in the storage facility.

32. A system as defined in claim 1 further comprising means for translating the particular second set of data into a file format defined by the authorized user before the allowing means downloads the particular second set of data.

33. A system as defined in claim 1 further comprising means for translating data received by the system into a file format defined by the authorized user before storing the received data in the facility.

34. A data management system comprising:

a storage device for providing paid storage for digital assets of a plurality of unrelated asset provider users, at least some of the digital assets stored in the electronic storage facility including first sets of data each having a first bandwidth requirement and second sets of data each representative of an associated one of the first sets of data and having a second bandwidth requirement less than the first bandwidth requirement, the storage device storing the digital assets of a first one of the asset provider users such that the digital assets of the first asset provider user can only be accessed by authorized users identified by the first asset provider and such that the digital assets of the first asset provider user are transparent to users that are not authorized by the first asset provider user;

a search engine for searching among sets of data stored in the storage device;

a communication device operable to allow remote communication by a user with the system including means for sending a particular second set of data to a user in response to a user request to the search engine;

means for accepting a user-defined work order from a first location via the communication device wherein the work order identifies a second location as an intended destination of the work order, identifies the particular second set of data, and includes further data developed outside the system;

a router for electronically routing a job order to a second location, the job order including

the first set of data associated with the particular second set of data identified in the work order.

35. A digital image management and order delivery system comprising:

a storage device for providing storage for digital images of a plurality of

unrelated asset provider users, the storage device storing the digital images of a first one of the asset provider users such that the digital images of the first asset provider user can only be accessed by authorized users identified by the first asset provider user and such that the digital images of the first asset provider user are transparent to users that are not authorized by the first asset provider user;

a searching engine for developing a subset of the digital images stored in the storage device by the first asset provider user in response to inputs received from a first authorized user identified by the first asset provider user, the searching engine being adapted to download low resolution copies of the subset to the first authorized user;

a job order developer responsive to inputs received from the first authorized user for developing a job order which includes: a) at least one high resolution copy of a digital image contained in the subset and identified by the first authorized user, and b) a file containing information developed by the first authorized user outside of the system; and,

a router for electronically routing the job order developed by the job order developer to a second user specified by the first authorized user.

36. A system as defined in claim 35 wherein the digital images are input to the system by the first asset provider user via a communication device.

37. A system as defined in claim 36 further comprising an image handler for processing the digital images input by the first asset provider user, the image handler being adapted to develop low resolution images of the digital images received from the first asset provider user and to store both the digital images received from the first asset provider and the low resolution images thereof in the storage device in an addressable fashion for future searching.

38. A system as defined in claim 36 further comprising means for translating the digital images received by the system into a file format defined by the first asset provider user before storing the digital images in the storage device.

39. A system as defined in claim 35 further comprising an event tracker for monitoring and recording predefined events occurring in the system.

40. A system as defined in claim 39 wherein the predefined events comprise one of the group consisting of: storing a new digital image in the storage device; deleting a stored digital image from the storage device; connecting to the system; disconnecting from the system; conducting a search of the digital images stored in the storage device; downloading a low resolution copy of one of the digital images stored in the storage device; downloading a high resolution copy of one of the digital images stored in the storage device; and routing a work order to a user.

41. A system as defined in claim 39 further comprising means for developing an indication of a charge to be assessed a user when at least one of the predefined events is recorded by the event tracker.

42. A system as defined in claim 41 wherein the charge developing means automatically generates invoices on a periodic basis.

43. A system as defined in claim 42 wherein the router automatically routes the invoices to the users responsible for payment.

44. A system as defined in claim 35 further comprising means for developing miniaturized depictions of the subset developed by the searching engine.

45. A system as defined in claim 44 further comprising first means for downloading the miniaturized depictions of the subset to the first authorized user, and, second means responsive to inputs from the first authorized user for downloading at least one low resolution copy corresponding to a selected one of the miniaturized depictions.

46. A system as defined in claim 44 wherein the router automatically electronically routes the job order to the second user.

47. A system as defined in claim 46 wherein the router automatically sends a facsimile to the second user notifying the second user of the job order being routed.

48. A system as defined in claim 46 wherein the router automatically sends an e-mail message to the second user notifying the second user of the job order being routed.

49. A system as defined in claim 35 wherein the file defines a document to be printed, the second user is a printer, and the at least one high resolution image is to be printed as part of the document.

50. A system as defined in claim 49 wherein the searching engine, the job order developer and the router are implemented by at least one programmed processing device.

51. A system as defined in claim 50 wherein the at least one programmed processing device is implemented by a file storage server and an autolog server interconnected for co-operative operation.

52. A system as defined in claim 51 wherein the at least one programmed processing device is further implemented by a database server.

53. A system as defined in claim 50 wherein the at least one programmed processing device, the first user, and the second user are interconnected by a network.

54. A system as defined in claim 35 further comprising a communication device for receiving and transmitting data to one or more remote users.

55. A system as defined in claim 54 wherein the communication device is implemented by an internet server, a telecommunications server, and an e-mail server.

56. A system as defined in claim 35 wherein the storage device is implemented by an image storage device and a data storage device.

57. A system as defined in claim 56 wherein the image storage device comprises an optical disk robot and an optical data reader.

58. A system as defined in claim 56 wherein the data storage device comprises a RAID system.

59. A system as defined in claim 35 further comprising:

means for receiving digital data from the first asset provider user to be stored in the storage device; and,

means for compressing the digital data received by the receiving means in accordance with a parameter set by the first asset provider user.

60. A system as defined in claim 35 wherein the parameter defines a compression format to be employed by the compressing means.

61. A system as defined in claim 35 wherein the parameter defines a degree of compression to be employed by the compressing means.

62. A system as defined in claim 36 further comprising means for developing an indication of a charge to be assessed the first asset provider user for storing the digital data in the storage device.

63. A system as defined in claim 62 wherein the charge developing means develops the charge based on the amount of storage memory utilized by the digital data.

64. A digital data storage facility as defined in claim 63 wherein the charge developing means develops a further charge based on the amount of time the digital data is stored in the storage device.

65. A system as defined in claim 35 further comprising means for translating the low resolution copies of the subset into a file format defined by the first authorized user before the searching engine downloads the low resolution copies of the subset to the first authorized user.

66. A digital image management and order delivery system comprising:

a storage device for providing paid storage for digital assets of a plurality of unrelated asset provider users, at least some of the digital assets stored in the storage device containing digital images, the digital images including both a high

resolution copy and a low resolution copy of each of the digital images;

a charge developer which accesses charges to the plurality of unrelated asset provider users based on at least one of an amount of storage memory utilized by the digital assets of the charged asset provider user and an amount of time the digital assets of the charged asset provider user are stored in the storage device;

a processor coupled to the storage device for permitting access to the digital images of a first asset provider user by a first predefined user identified by the first asset provider user, the processor providing a searching engine for addressing and retrieving the digital images, the processor being adapted to download low resolution copies of the digital images to the first predefined user identified by the first asset provider user and to provide high resolution copies of the digital images to a second predefined user specified by the first predefined user; the processor being further adapted to automatically electronically route documents created by the first predefined user to the second predefined user, the processor downloading high resolution copies corresponding to the low resolution copies of the digital images identified by the first predefined user to the second predefined user for inclusion in the documents.

67. A method of managing digital images comprising the steps of:

storing a high resolution and a low resolution copy of each of a first plurality of digital images provided by a first asset provider user in an electronically searchable format on a storage device;

storing a high resolution and a low resolution copy of each of a second plurality of digital images provided by a second asset provider user in an electronically searchable format on the storage device;

permitting a first authorized user identified by the first asset provider user to locate and download a low resolution copy of at least one of the digital images provided by the first asset provider user, the second plurality of images being transparent to the first authorized user;

receiving an electronic file defining a document from the first authorized user, the document being designed to incorporate the at least one digital image and data developed outside of the system;

receiving instructions from the first authorized user directing that the electronic file be delivered to a second user; and,

automatically electronically routing the electronic file and a high resolution copy of the at least one digital image to the second user identified by the first authorized user.

68. A digital data storage facility for providing storage for a plurality of third party users comprising:

a storage device;

means for receiving digital data from a user in the plurality;

means for compressing the digital data received by the receiving means in accordance with a parameter set by the user; and,

means for storing the digital data compressed by the compressing means in the storage device.

69. A digital data storage facility as defined in claim 68 wherein the parameter defines a compression format to be employed by the compressing means.

70. A digital data storage facility as defined in claim 68 wherein the parameter defines a degree of compression to be employed by the compressing means.

71. A digital data storage facility as defined in claim 68 further comprising means for developing an indication of a charge to be assessed the user for storing the digital data in the storage device.

72. A digital data storage facility as defined in claim 71 wherein the charge developing means develops the charge based on the amount of storage memory utilized by the digital data.



73. A digital data storage facility as defined in claim 72 wherein the charge developing means develops a further charge based on the amount of time the digital data is stored in the storage device.

74. A digital image management and order delivery system comprising:

a storage device for storing digital images received from a first digital image provider and a second digital image provider;

a searching engine for developing a subset of the digital images stored in the storage device in response to inputs received from a first user, the searching engine being adapted to download low resolution copies of the subset to the first user;

a job order developer responsive to inputs received from the first user for developing a job order which includes at least one high resolution copy of a digital image contained in the subset and identified by the first user; and,

a router for electronically routing the job order developed by the job order developer to a second user specified by the first user; and

a user identifier for discriminating between users communicating with the system to control user access to the digital images stored in the storage device, the user identifier limiting access to the digital images provided by the first digital image provider to at least one user identified by the first digital image provider, wherein the digital images provided by the first image provider are transparent to all users except users identified by the first digital image provider.

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File: PGPB

May 31, 2001

PGPUB-DOCUMENT-NUMBER: 20010002204  
PGPUB-FILING-TYPE: new-utility  
DOCUMENT-IDENTIFIER: US 20010002204 A1

TITLE: Data management and order delivery system

PUBLICATION-DATE: May 31, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
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Carlson, Lowell D.	Moline	IL	US	
James, Jeffrey Scott	Bettendorf	IA	US	

## ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE	CODE
Marshall, O'Toole, Gerstein, Murray & Borun					02

APPL-NO: 09/ 731359 [PALM]  
DATE FILED: December 6, 2000

## RELATED-US-APPL-DATA:

RLAN	RLFD	RLPC	RLKC	RLAC
09731359	Dec 6, 2000	PENDING	A1	US
09619188	Jul 19, 2000	PENDING		US
09619188	Jul 19, 2000			US
08908046	Aug 11, 1997			

INT-CL: [07] H04 N 7/12

US-CL-PUBLISHED: 375/240.01

US-CL-CURRENT: 375/240.01

REPRESENTATIVE-FIGURES: 1

## ABSTRACT:

A digital data management and order delivery system is provided. The system includes a storage device for storing digital data and a searching engine for developing a subset of the digital data stored in the storage device in response to inputs received from a first user. The system is also provided with a job order developer responsive to inputs received from the first user for developing a job order which includes: a) at least one copy of the digital data contained in the subset and identified by the first user; and b) a file containing information developed by the first user outside the system. In addition, the system includes a router for electronically routing the job order compiled by the job order developer to a second user specified by the first user.

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# PALM INTRANET

## Inventor Name Search Result

Your Search was:

Last Name = JEBENS

First Name = JOHN

Application#	Patent#	Status	Date Filed	Title	Inventor Name
<u>08908046</u>	<u>6321231</u>	150	08/11/1997	A DATA MANAGEMENT SYSTEM WITH AN ELECTRONIC STORAGE FACILITY AND ORDER DELIVERY SYSTEM	JEBENS , JOHN H.
<u>09517526</u>	Not Issued	030	03/02/2000	METHOD OF SELLING ON-LINE STORAGE SPACE FOR DIGITAL ASSETS	JEBENS, JOHN
<u>09619188</u>	<u>6332146</u>	150	07/19/2000	DATA MANAGEMENT AND ORDER DELIVERY SYSTEM	JEBENS, JOHN
<u>09731359</u>	Not Issued	030	12/06/2000	DATA MANAGEMENT AND ORDER DELIVERY SYSTEM	JEBENS, JOHN

Inventor Search Completed: Search Completed: No Records to Display.

	<b>Last Name</b>	<b>First Name</b>
<b>Search Another:</b>	<input type="text" value="jebens"/>	<input type="text" value="john"/>
<b>Inventor</b>	<input type="button" value="Search"/>	

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File: PGPB

May 31, 2001

PGPUB-DOCUMENT-NUMBER: 20010002204  
PGPUB-FILING-TYPE: new-utility  
DOCUMENT-IDENTIFIER: US 20010002204 A1

TITLE: Data management and order delivery system

PUBLICATION-DATE: May 31, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Jebens, John H.	Tierra Verde	FL	US	
Carlson, Lowell D.	Moline	IL	US	
James, Jeffrey Scott	Bettendorf	IA	US	

## ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE	CODE
Marshall, O'Toole, Gerstein, Murray & Borun				02	

APPL-NO: 09/ 731359 [PALM]  
DATE FILED: December 6, 2000

## RELATED-US-APPL-DATA:

RLAN	RLFD	RLPC	RLKC	RLAC
09731359	Dec 6, 2000	PENDING	A1	US
09619188	Jul 19, 2000	PENDING		US
09619188	Jul 19, 2000			US
08908046	Aug 11, 1997			

INT-CL: [07] H04 N 7/12

US-CL-PUBLISHED: 375/240.01

US-CL-CURRENT: 375/240.01

REPRESENTATIVE-FIGURES: 1

## ABSTRACT:

A digital data management and order delivery system is provided. The system includes a storage device for storing digital data and a searching engine for developing a subset of the digital data stored in the storage device in response to inputs received from a first user. The system is also provided with a job order developer responsive to inputs received from the first user for developing a job order which includes: a) at least one copy of the digital data contained in the subset and identified by the first user; and b) a file containing information developed by the first user outside the system. In addition, the system includes a router for electronically routing the job order compiled by the job order developer to a second user specified by the first user.

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<u>L6</u>	L5 and copy	342	<u>L6</u>
<u>L5</u>	L4 and low near resolution	1006	<u>L5</u>
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<u>L2</u>	digital with image	92045	<u>L2</u>
<u>L1</u>	digital near image	34146	<u>L1</u>

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L7: Entry 23 of 169

File: USPT

Dec 18, 2001

US-PAT-NO: 6332146

DOCUMENT-IDENTIFIER: US 6332146 B1

TITLE: Method and apparatus for storing and printing digital images

DATE-ISSUED: December 18, 2001

## INVENTOR-INFORMATION:

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James; Jeffrey Scott	Bettendorf	IA		
Carlson; Lowell D.	Moline	IL		

US-CL-CURRENT: 345/428, 705/26, 705/27, 707/10, 707/102, 707/3

## CLAIMS:

What is claimed is:

1. A method for printing digital images, the method comprising the steps of:uploading a first high resolution digital image from a first image provider to an electronic storage facility;receiving and storing the first high resolution digital image at the electronic storage facility;permitting the first image provider to identify users who can access the first high resolution digital image stored at the electronic storage facility;

receiving first login information from a first user, the first login information including a first user identification name and a first password;

determining if the first login information is associated with a user identified by the first image provider;

generating a low resolution copy of the first high resolution digital image;

if the first login information is associated with a user identified by the first image provider:

(a) transmitting the low resolution copy of the first high resolution digital image to the first user via the Internet;(b) detecting a selection made by the first user, the selection made by the first user identifying the low resolution copy of the first high resolution digital image; and(c) printing the first high resolution digital image in response to detecting the selection made by the first user;uploading a second high resolution digital image from a second image provider to the electronic storage facility;receiving and storing the second high resolution digital image at the electronic storage facility;

permitting the second image provider to identify users who can access the second

high resolution digital image stored at the electronic storage facility;

receiving second login information from a second user the second login information including a second user identification name and a second password;

determining if the second login information is associated with a user identified by the second image provider;

generating a low resolution copy of the second high resolution digital image;

if the second login information is associated with a user identified by the second image provider:

(a) transmitting the low resolution copy of the second high resolution digital image to the second user via the Internet if the second login information is valid;

(b) detecting a selection made by the second user, the selection made by the second user identifying the low resolution copy of the second high resolution digital image; and

(c) printing the second high resolution digital image in response to detecting the selection made by the second user;

maintaining transparency of the first high resolution digital image to the second user; and

maintaining transparency of the second high resolution digital image to the first user.

2. A method as defined in claim 1 wherein the first image provider is a user identified by the first image provider.

3. A method as defined in claim 1 wherein a user different from the first image provider is a user identified by the first image provider.

104 12/4 125 4. A digital image management system comprising:

an electronic storage facility for providing storage for high resolution digital images of a plurality of unrelated image providers, at least some of the high resolution digital images stored in the electronic storage facility being used to develop corresponding low resolution copies, each high resolution digital image having a higher bandwidth communication requirement than each of the corresponding low resolution copies, the electronic storage facility storing the high resolution digital images of a first one of the image providers such that the high resolution digital images of the first image provider can only be accessed by authorized users identified by the first image provider and such that the high resolution digital images of the first image provider are transparent to other unrelated image providers that are not authorized by the first image provider, the high resolution digital images stored in the electronic storage facility being received via the Internet,

means for allowing an authorized user identified by the first image provider to download a particular low resolution copy from the electronic storage facility to a first location;

means for accepting a work order from the authorized user at the first location wherein the work order identifies a particular high resolution digital image corresponding to the particular low resolution copy;

job order development means responsive to the accepting means for developing a job order including the particular high resolution digital image; and

means for electronically routing the job order to a printer.

105 5. A digital image management system as defined in claim 4, further comprising image handling means for processing the high resolution digital images to develop the corresponding low resolution copies.

106 6. A digital image management system as defined in claim 4, further comprising a mail database, the mail database including a conventional address for the authorized user.

7. A digital image management system as defined in claim 4 wherein the first image provider is an authorized user identified by the first image provider.

8. A digital image management system as defined in claim 4 wherein a user different from the first image provider is an authorized user identified by the first image provider.

9. A digital image management system comprising:

an electronic storage facility for providing storage for digital images of a plurality of unrelated image providers, at least some of the high resolution digital images stored in the electronic storage facility being used to develop corresponding low resolution copies, each high resolution digital image having a higher bandwidth communication requirement than each of the corresponding low resolution copies, the electronic storage facility storing the high resolution digital images of a first one of the image providers such that the high resolution digital images of the first image provider can only be accessed by authorized users identified by the first image provider and such that the high resolution digital images of the first image provider are transparent to other unrelated image providers that are not authorized by the first image provider, the high resolution digital images stored in the electronic storage facility being received via the Internet;

107 a search engine for searching among digital images stored in the storage device;

a communication device operable to allow remote communication by a user with the digital image management system including means for sending a particular low resolution copy of a particular high resolution digital image to the user in response to a request therefor;

means for accepting a user defined work order from a first location via the communication device wherein the work order identifies the particular low resolution copy of the particular high resolution digital image; and

a router for electronically routing a job order to a printer, the job order including the particular high resolution digital image associated with the particular low resolution copy identified in the work order.

10. A digital image management system as defined in claim 9 wherein the first image provider is an authorized user identified by the first image provider.

11. A digital image management system as defined in claim 9 wherein a user different from the first image provider is an authorized user identified by the first image provider.

108/122 12. A digital image management and delivery system comprising:

a storage device for providing storage for digital images of a plurality of unrelated image providers the storage device storing the digital images of a first one of the image providers such that the digital images of the first image provider can only be accessed by authorized users identified by the first image provider and such that the digital images of the first image provider are transparent to users that are not authorized by the first image provider, the high resolution digital images stored in the storage device being received via the Internet;

a searching engine for developing a subset of the digital images stored in the storage device by the first image provider in response to inputs received from a first authorized user identified by the first image provider, the searching engine being adapted to download low resolution copies of the subset to the first authorized user; and

a router for electronically routing at least one high resolution copy of a digital image contained in the subset and identified by the first authorized user to a printer.

109 13. A system as defined in claim 12 wherein the digital images are input to the system by the first image provider via a communication device.

110 14. A system as defined in claim 13 further comprising an image handler for processing the digital images input by the first image provider, the image handler being adapted to develop low resolution images of the digital images received from the first image provider and to store both the digital images received from the first image provider and the low resolution images thereof in the storage device in



an addressable fashion for future searching.

15. A digital image management system as defined in claim 12 wherein the first image provider IS an authorized user identified by the first image provider.

16. A digital image management system as defined in claim 12 wherein a user different from the first image provider is an authorized user identified by the first image provider.

111, 123 17. A method of managing digital images comprising the steps of:

receiving a plurality of digital images from a first image provider via the Internet;

storing a high resolution and a low resolution copy of each of the first plurality of digital images provided by the first image provider in an electronically searchable format on a storage device;

receiving a plurality of digital images from a second image provider via the Internet;

storing a high resolution and a low resolution copy of each of the second plurality of digital images provided by the second image provider in an electronically searchable format on the storage device;

permitting a first authorized user identified by the first image provider to locate and download a low resolution copy of at least one of the digital images provided by the first image provider, the second plurality of digital images being transparent to the first authorized user;

receiving a request from the first authorized user, the request identifying at least one digital image;

receiving instructions from the first authorized user directing that the at least one digital image be printed; and

automatically electronically routing the high resolution copy of the at least one digital image to a printer.

18. A method as defined in claim 17 wherein the first image provider is a user identified by the first image provider.

19. A method as defined in claim 17 wherein a user different from the first image provider is a user identified by the first image provider.

117, 124 20. A digital image management and delivery system comprising:

a storage device for storing digital images received via the Internet from a first digital image provider and a second digital image provider;

a searching engine for developing a subset of the digital images stored in the storage device in response to inputs received from a first user, the searching engine being adapted to download low resolution copies of the subset to the first user;

a job order developer responsive to inputs received from the first user for developing a job order which includes at least one high resolution copy of a digital image contained in the subset and identified by the first user;

a router for electronically routing the job order developed by the job order developer to a printer; and

a user identifier for discriminating between users communicating with the system to control user access to the digital images stored in the storage device, the user identifier limiting access to the digital images provided by the first digital image provider to at least one user identified by the first digital image provider, wherein the digital images provided by the first digital image provider are transparent to all users except users identified by the first digital image provider.

21. A digital image management system as defined in claim 20 wherein the first image provider is an authorized user identified by the first image provider.

22. A digital image management system as defined in claim 20 wherein a user different from the first image provider is an authorized user identified by the first image provider.

23. A digital image management and delivery system comprising:

a storage device for storing digital images received via the internet from a first digital image provider and a second digital image provider;

a searching engine for developing a subset of the digital images stored in the storage device in response to inputs received from a first user, the searching engine being adapted to download low resolution copies of the subset to the first user;

a router for electronically routing at least one high resolution copy of a digital image contained in the subset and identified by the first user to a printer; and

a user identifier for discriminating between users communicating with the system to control user access to the digital images stored in the storage device, the user identifier limiting access to the digital images provided by the first digital image provider to at least one user identified by the first digital image provider, wherein the digital images provided by the first digital image provider are transparent to all users except users identified by the first digital image provider.

24. A digital image management system as defined in claim 23 wherein the first image provider is an authorized user identified by the first image provider.

25. A digital image management system as defined in claim 23 wherein a user different from the first image provider is an authorized user identified by the first image provider.

**WEST**

Generate Collection

Print

L7: Entry 35 of 73

File: USPT

Mar 16, 1999

US-PAT-NO: RE36145

DOCUMENT-IDENTIFIER: US RE36145 E

TITLE: System for managing tiled images using multiple resolutions

DATE-ISSUED: March 16, 1999

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
DeAguiar; John R.	Sebastopol	CA		
Larkin; Ross M.	Rolling Hills	CA		

## ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Optigraphics Corporation	San Diego	CA			02

APPL-NO: 8/ 559027 [PALM]

DATE FILED: November 16, 1995

## REISSUE-DATA:

US-PAT-NO	DATE-ISSUED	APPL-NO	DATE-FILED
05263136	November 16, 1993	694416	April 30, 1991

INT-CL: [6] G06 F 13/00

US-CL-ISSUED: 345/511; 345/501, 395/200.3, 382/232

US-CL-CURRENT: 345/538; 345/501, 345/555, 382/232, 709/200

FIELD-OF-SEARCH: 395/128, 395/139, 395/114, 395/501, 395/502, 395/507, 395/508, 395/511, 395/200.01, 395/200.02, 395/200.3, 395/200.31, 345/189, 345/201, 345/190, 345/202, 345/428, 345/439, 345/501, 345/502, 345/507, 345/508, 345/511, 345/509, 382/232, 382/244, 382/248, 382/240, 382/238

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Search Selected

Search ALL

	PAT-NO	ISSUE DATE	PATENTEE-NAME	US-CL
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<input type="checkbox"/>	<u>4878183</u>	October 1989	Ewart	395/128
<input type="checkbox"/>	<u>4920504</u>	April 1990	Sawada et al.	395/166
<input type="checkbox"/>	<u>4951230</u>	August 1990	Dalrymple et al.	395/166
<input type="checkbox"/>	<u>4969204</u>	November 1990	Melnychuck et al.	382/240
<input type="checkbox"/>	<u>5020003</u>	May 1991	Moshenberg	395/164
<input type="checkbox"/>	<u>5138459</u>	August 1992	Roberts et al.	348/232
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<input type="checkbox"/>	<u>5568570</u>	October 1996	Rabbani	382/238

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ART-UNIT: 273

PRIMARY-EXAMINER: Tung; Kee M.

ATTY-AGENT-FIRM: Knobbe, Martens, Olson & Bear, LLP

## ABSTRACT:

An image memory management system for tiled images. The system defines an address space for a virtual memory that includes an image data cache and a disk. An image stack for each source image is stored as a full resolution image and a set of lower-resolution subimages. Each tile of an image may exist in one or more of five different states as follows: uncompressed and resident in the image data cache, compressed and resident in the image data cache, uncompressed and resident on disk, compressed and resident on disk and not loaded but re-creatable using data from higher-resolution image tiles.

39 Claims, 46 Drawing figures

**WEST**

Generate Collection

Print

L7: Entry 29 of 73

File: USPT

Jan 4, 2000

US-PAT-NO: 6011905

DOCUMENT-IDENTIFIER: US 6011905 A

TITLE: Using fontless structured document image representations to render displayed and printed documents at preferred resolutions

DATE-ISSUED: January 4, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Huttenlocher; Daniel P.	Ithaca	NY		
Rucklidge; William J.	Mountain View	CA		
Brown; John Seely	Palo Alto	CA		

## ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Xerox Corporation	Stamford	CT			02

APPL-NO: 8/ 752497 [PALM]  
DATE FILED: November 8, 1996

## PARENT-CASE:

This application is a continuation-in-part of Ser. No. 08/652,864 (now U.S. Pat. No. 5,884,084), filed May 23, 1996, commonly assigned and having at least one common inventor.

INT-CL: [6] G06 T 7/60

US-CL-ISSUED: 395/102; 395/109, 395/112, 395/114, 395/117, 395/187.01, 382/180, 382/299, 707/513

US-CL-CURRENT: 358/1.2; 358/1.13, 358/1.15, 358/1.18, 358/1.9, 382/180, 382/299, 707/513, 713/201

FIELD-OF-SEARCH: 395/106, 395/109, 395/114, 395/102, 395/358, 395/187.01, 395/101, 395/117, 395/112, 382/240, 382/299, 382/305, 382/180, 707/101, 707/513, 707/911, 707/500, 707/104, 380/21, 345/202, 345/203, 345/433, 345/509, 345/515

## PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
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<input type="checkbox"/>	<u>4499499</u>	February 1985	Brickman et al.	358/263
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<input type="checkbox"/>	<u>4703516</u>	October 1987	Fukuda	382/56
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<input type="checkbox"/>	<u>5218455</u>	June 1993	Kristy	358/403
<input type="checkbox"/>	<u>5303313</u>	April 1994	Mark et al.	382/56
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A. Broder and M. Mitzenmacher, "Pattern-Based Compression of Text Images", Proceedings DCC'96 Data Compression Conference (IEEE), Snowbird, Utah, Mar. 31-Apr. 3, 1996, pp. 300-309.

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ART-UNIT: 272

PRIMARY-EXAMINER: Coles; Edward L.

ASSISTANT-EXAMINER: Rosenblum; David

#### ABSTRACT:

A method in which first and second representations of a document are provided, for example, by being made available on one or more server computers connected to a computer network, such as the Internet or a corporate intranet. The first and second representations are resolution-dependent structured representations and have, respectively, first and second characteristic resolutions, the second resolution being greater than the first. The first representation, but not the second, is provided in digital form to an untrusted recipient. For example, the first representation can be transmitted through the network from the server on which the first representation is available to a client computer connected to the network. The second representation is converted to a third representation of the document, the third representation being a representation in a human-readable, nondigital form. For example, the second representation can be transmitted through the network in a

secure manner to a trusted printing facility connected to the network. The trusted facility can then produce the third representation, for example by printing a hardcopy representation of the document. Finally, the third representation, but not the second, is provided to the untrusted recipient, for example, by physically transferring the third representation to the untrusted recipient.

17 Claims, 28 Drawing figures



**WEST**☐  

L7: Entry 28 of 73

File: USPT

Mar 28, 2000

US-PAT-NO: 6043909

DOCUMENT-IDENTIFIER: US 6043909 A

TITLE: System for distributing and controlling color reproduction at multiple sites

DATE-ISSUED: March 28, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Holub; Richard A.	Brighton	NY		

## ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Imagicolor Corporation	Rochester	NY			02

APPL-NO: 8/ 606883 [PALM]

DATE FILED: February 26, 1996

INT-CL: [7] H04 N 1/23

US-CL-ISSUED: 358/504; 358/518

US-CL-CURRENT: 358/504; 358/518

FIELD-OF-SEARCH: 358/504-505, 358/518-523, 358/400, 358/500, 382/162, 382/167

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/> <u>2790844</u>	April 1957	Neugebauer	178/5.2
<input type="checkbox"/> <u>4500919</u>	February 1985	Schreiber	358/78
<input type="checkbox"/> <u>4987496</u>	January 1991	Greivenkamp, Jr.	358/448
<input type="checkbox"/> <u>5107332</u>	April 1992	Chan	358/80
<input type="checkbox"/> <u>5109275</u>	April 1992	Naka et al.	358/80
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<input type="checkbox"/> <u>5185673</u>	February 1993	Sobol	358/296
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<input type="checkbox"/> <u>5231481</u>	July 1993	Eouzan et al.	358/60
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#### ABSTRACT:

The system provides for controlling color reproduction of input color image data representing one or more pages or page constituents in a network having nodes (or sites). Each one of the nodes comprises at least one rendering device. The system distributes the input color image data from one of the nodes to other nodes, and provides a data structure (virtual proof) in the network. This data structure has components shared by the nodes and other components present only at each node. Next, the system has means for providing color calibration data at each node characterizing output colors (colorants) of the rendering device of the node, and means for producing at each node, responsive to the color calibration data of the rendering device of the node, information for transforming the input color image data into output color image data at the rendering device of the node. The information is then stored in the data structure in different ones of the shared and other components. Means are provided in the system for transforming at each node the input color image data into output color image data for the rendering device of the node responsive to the information in the data structure. The rendering device of each node renders a color reproduction of the page constituents responsive to the output color image data, wherein colors displayed in the reproduction at the rendering device of each node appear substantially the same within the output colors attainable by the rendering devices. The system further has means for verifying at each node that the information for the rendering device of the node properly transformed the input color image data into the output color image data, and means for revising the information stored in the data structure at the node responsive to results of the verifying means. Shared components of the data structure may also store color preferences selected by a user. The information producing means of the system may further operate responsive to both the color calibration data and the color preferences. The rendering devices in the system can provide color

reproductions having three or four colorants, and may provide more than four output colors (color inks).

69 Claims, 41 Drawing figures